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ABSTRACT

First-order analyses of the data obtained from 90 workshop participants, each of whom played the role of the principal of Janus Junior High School (a racially mixed inner city school) have identified 16 factors of actions, values, and means of communication. Second-order analyses have identified three types of administrative style: (1) personal-transactional, (2) authoritarian, and (3) participative. Further research is planned to test the stability of these findings, hopefully with larger, more representative samples in both simulated and real-world environments. (Author)

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Playing the Role of the Principal: Patterns of Administrative Response

by Alan K. Gaynor[1]

ABSTRACT

This paper reports an exploratory study. Employing a relatively small sample, the author investigated patterns of responses to administrative problems of 90 workshop participants in five simulation workshops held in different parts of the United States during the summer of 1971. All five workshops exposed participants to the UCEA Janus Junior High School Principalship Role Simulation. Instruments developed by the author were used as self-scoring devices by participants to record the kinds of actions they took, the means of communication they used, and the array of values they brought to problem situations typical of the urban junior high school with a mixed racial population.

Through a series of factor analyses, several modal profiles emerged, each of which corresponds to a kind of "administrative style." These included patterns of Personal-Transactional Leadership, Authoritarian Leadership, and Participative Leadership. Whether these constitute stable patterns of administrative response is a question to be answered by a program of research employing refined instruments and larger, more representative samples.

BACKGROUND TO THE STUDY

Over the past decade, the University Council for Educational Administration (UCEA) has produced several generations of simulations for use in preparing educational administrators. These include the Jefferson Township Simulation, the Madison Simulation, and a complex of third generation materials known collectively as the UCEA Urban Simulation Materials. The Urban Simulation includes a wide array of modules, all of which are set in the Monroe City Public Schools, a pseudonym for one of the country's large city school districts (the student population is over 100,000). Three modules have been produced and disseminated to date. All three are principalship role simulations: Janus Junior High School, Wilson Senior High School, and the Abraham Lincoln Elementary School.

Research has been done on the effects of participation in simulations

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[1]The author is Associate Professor of Educational Administration, School of Education, Boston University. Paper presented April 7, 1972, at the Annual Convention of the American Educational Research Association, Chicago, Illinois.

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upon students as learners. Uniformly, this research demonstrates, first of all, that students enjoy simulation. Second, it demonstrates that if students learn anything better in simulations it is to play the game.[2] That students perform better in the real world as a result of their experience with educational games and simulations has not been demonstrated.

PURPOSES OF THE STUDY

An assumption underlying the author's work in this area is that one learns not so much from doing as from reflection upon that which one has done. The primary purpose of the study which is reported here is to help create the conditions for more informed reflection.

Traditionally, although scoring instruments have been available,[3] follow-up activities for simulation role players in workshops using UCEA materials have been mainly those of discussion. Role players typically share their reactions to the problems presented in the simulation. Professors participate in the discussions and, often, relate conceptual models from the literature to the problem situations. However, there have not been available relatively simple instruments which enable the role player to assess his own patterns of response.

The reported work is, then, part of a long term effort to understand the complexities of administrative response. Specifically, the intent of this phase of the work was to explore patterns of administrative response and to test instruments which facilitate this exploration.

THE SAMPLE

Subjects included 90 participants in 5 simulation workshops. These workshops were held in four locations in different parts of the United States. The distribution of the sample population on several personal characteristics is shown in the following five tables (Tables No. 1-5).

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[2]Cleo H. Cherryholmes, "Some Current Research on Effectiveness of Educational Simulations: Implications for Alternative Strategies," American Behavioral Scientist, 10(2), October, 1966; E. O. Schild, "The Shaping of Strategies," American Behavioral Scientist, 10(3), November, 1966.

[3]A complex scoring technique was presented by John Hemphill, Daniel Griffiths, and Norman Fredriksen in Administrative Performance and Personality (New York: Bureau of Publication, Teachers College, Columbia University, 1962), but it is rarely used because of the manpower required to service the scoring. Gerald Boardman, University of Florida, has experimented with computerized scoring using the same scoring technique but it, too, is not widely used. Some of the author's instruments are based upon the Hemphill, Griffiths, and Fredriksen taxonomy, but the original has been strongly revised.

Table No. 1. Age of Respondents.

Age	Number of Respondents
Under 30	36
30-39	27
40-49	19
50-59	5
60 or over	1
No Response	2
	90

Table No. 2. Sex of Respondents.

Sex	Number of Respondents
Female	22
Male	66
No Response	2
	90

Table No. 3. Number of Years of Administrative Experience in the Schools.

Number of Years	Number of Respondents
None	37
1-3	26
3-6	13
6-10	2
More than 10	9
No Response	3
	90

Table No. 4. Respondent's Highest Level of Administrative Experience in the Schools.

Highest Level of Experience	Number of Respondents
No Experience	39
Assistant Principal	15
Elementary Principal	13
Secondary Principal (under 1,000 pupils)	7
Secondary Principal (over 1,000 pupils)	2
Central Office	10
Superintendent (under 10,000 pupils)	1
Superintendent (over 10,000 pupils)	0
No Response	3
	90

Table No. 5. Regional Affiliation of Respondent as a Professional Educator.

Region of Principal Affiliation	Number of Respondents
Never employed as a professional educator	2
Southeast	41
Southwest	21
Far West	1
Rocky Mountains	1
North Central (Midwest)	2
New England	1
Middle Atlantic	17
Foreign or Outside Continental United States	4
	90

THE INSTRUMENTS

All data were collected within the decisionmaking context of the UCEA Janus Junior High School Principalship Role Simulation. Data collected included responses to the 22 items of in-basket II of the simulation. Instruments used include the following: Personal Information Questionnaire (5 items); Rokeach Dogmatism Scale (39 items); Action Analysis Profile (65 items included in the analyses[4]); Value Assumptions Profile (20 items); Means of Communication Profile (7 items).[5] For purposes of analysis, each item of the three profiles was treated as a dichotomous variable (scored or not scored). Each item on the Personal Information Questionnaire was treated as an independent scale. The total score was used for the D-Scale.

RESULTS

First Order Analyses

The Action Analysis Profile (AAP)

Of the 65 variables comprising the AAP, 14 loaded (greater than or equal to .35) on Factor 1 (Table 6).[7] Examination of the factor correlation matrix (not included in the paper) reveals that five of the variables loading on Factor 1 strongly correlated (greater than or equal to .35) with four or more other variables. These included factor variables Nos. 1-4 and 12. The strong bivariate relationships of the variable, "Created or made plans to create a new program," with other key variables comprising the factor suggest that, despite its small loading, it is an important variable in explaining

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[4]The scoring matrix contained 194 cells. Many of these, however, proved to be empty and others attracted few responses. Those items which attracted less than eight responses each in total across all items and all respondents were eliminated from the analyses. In this way, the number of variables in the profile was reduced to 65, the largest number of variables within the capability of the FACT65 Varimax program at the Boston University Computing Center.

[5]Information about the specific content and format of these instruments may be obtained by writing to the author.

[6]At this point it should be reemphasized that the sample investigated was quite small. A factor analysis of 65 variables should, at least by conservative standards, have 650 subjects (10 x 65). Clearly, for this analysis, there were far too few subjects. On the one hand, this may not support a high level of confidence in the results. Indeed, they may prove to be unstable across replications. On the other hand, the results are in many ways both intuitively appealing and suggestive of hypotheses for further research. Essentially the study, as noted earlier, has been primarily exploratory. It should be pointed out, too, that the inadequacy of the sample was not so marked for the other profiles. The Value Assumptions Profile has only 20 items and the Means of Communication Profile but 7.

the factor. This cluster of key, high order inter-item correlations (r between .35 and .58) lends support to the interpretation of the factor reflected in its title. The factor seems to be defined by actions taken toward establishing structure for change. The correlation matrix seems to suggest that it is a relatively strong factor.

Table 6. AAP Factor 1: Initiating Structure for Change.

Variable	Loading
1. Created or made plans to create a new policy.	.70
2. Asked for opinion, advice, or permission from a faculty committee.	.67
3. Communicated as a matter of courtesy to higher authority.	.65
4. Created or made plans to create a faculty-citizen-student committee.	.63
5. Discussed or made arrangements to discuss the matter with a citizens committee.	.58
6. Directed the faculty.	.58
7. Informed a subordinate.	.57
8. Informed the faculty.	.44
9. Created or made plans to create a faculty committee.	.41
10. Directed a subordinate.	.40
11. Informed a citizens committee.	.38
12. Created or made plans to create a new program.	.36

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[7]Loadings less than .50 often reflect quite small inter-item correlations. However, this varies from one factor to another and it was decided to err towards inclusion rather than toward exclusion. This was done for two reasons. First, additional variables sometimes help to clarify the meaning of a factor. Second, there was constant backchecking to the correlation matrices, themselves, in order to identify weak factors and trivial loadings of any magnitude.

Table 6 (continued)

Variable	Loading
13. Directed a student.	.35
14. Informed a faculty committee.	.35

Eight variables loaded on AAP Factor 2 (Table 7). The factor inter-item correlation matrix contains correlations as high as .49 and, overall, is of moderate strength. The factor seems to define actions taken to exchange information with subordinates.

Table 7. AAP Factor 2: Exchanging Information with Subordinates.

Variable	Loading
1. Asked for or made arrangements to get information from a subordinate.	.58
2. Asked for or made arrangements to get information from a student.	.57
3. Informed a subordinate.	.52
4. Discussed or made arrangements to discuss the matter with a student.	.50
5. Discussed or made arrangements to discuss the matter with a subordinate.	.46
6. Informed a student.	.46
7. Communicated as a matter of courtesy to a subordinate.	.46
8. Asked for opinion, advice, or permission from a subordinate.	.38

Seven variables loaded on AAP Factor 3 (Table 8). The highest inter-item correlation, however, was only .33 and most correlations in the factor correlation matrix are quite small. This is clearly a weak factor. Since the loadings suggest the involvement of students and faculty but do not include the creation of new programs and policies, the factor seems to be defined by actions involving students and faculty in routine decisions.

Table 8. AAP Factor 3: Involving Students and Faculty in Routine Decisions.

Variable	Loading
1. Discussed or made arrangements to discuss the matter with the student organization.	.50
2. Explained actions to higher authority.	.48
3. Asked for or made arrangements to get information from a faculty committee.	.45
4. Informed higher authority.	.43
5. Informed a citizens committee.	.42
6. Asked for opinion, advice, or permission from an outsider.	-.48
7. Directed a subordinate.	-.36

Seven variables loaded on AAP Factor 4 (Table 9). This factor, whose correlation matrix showed it to be of moderate strength, seemed to be defined by actions dedicated to working through groups.

Table 9. AAP Factor 4: Working Through Groups.

Variable	Loading
1. Delegated partial authority in the matter (with guidelines) to the faculty.	.70
2. Discussed or made arrangements to discuss the matter with a faculty-citizen-student committee.	.61
3. Discussed or made arrangements to discuss the matter with the faculty.	.53
4. Created or made plans to create a faculty-student committee.	.52
5. Delegated partial authority in the matter (with guidelines) to a faculty committee.	.51
6. Created or made plans to create a student committee outside of the official student organization.	.49
7. Discussed or made arrangements to discuss the matter with higher authority.	.38

Eight variables loaded on AAP Factor 5 (Table 10). This factor, too, was of moderate strength, and seemed to be defined by actions emanating neither from the leader, himself, nor from a process of participative interaction with others, but rather simply from a desire (need) to respond to the wishes of others. It seems to suggest a reactive, rather than a proactive approach to decisionmaking. The key action verbs which comprise the factor seem to be discussing and explaining.

Table 10. AAP Factor 5: Responding Primarily to Others.

Variable	Loading
1. Discussed or made arrangements to discuss the matter with an outsider.	.62
2. Explained actions to a subordinate.	.59
3. Discussed or made arrangements to discuss the matter with a subordinate.	.50
4. Discussed or made arrangements to discuss the matter with a faculty-student committee.	.47
5. Explained actions to a citizens committee.	.40
6. Informed an outsider.	.39
7. Explained actions to higher authority.	.38
8. Created or made plans to create a new program.	.38

Six variables loaded on AAP Factor 6 (Table 11). This was a strong factor with inter-item correlations ranging up to .56. It seemed to be defined by actions suggesting unilateral decisionmaking with communication to faculty essentially after the fact.

Table 11. AAP Factor 6: Informing Faculty of Decisions Made.

Variable	Loading
1. Explained actions to a faculty committee.	.79
2. Discussed or made arrangements to discuss the matter with a faculty committee.	.59

Table 11 (continued)

Variable	Loading
3. Referred the matter to higher authority.	.58
4. Informed a faculty committee.	.58
5. Took action without involving others in a significant way before making the decision.	.45
6. Delegated complete authority in the matter to higher authority.	.35

Five factors loaded on AAP Factor 7 (Table 12), which was only moderate-to-weak in strength. Inter-item correlations ranged up to no more than .38. Interpretation of Factor 7 does not seem so clear. It depends to some extent upon the nature of the dialogue with other building principals and on how one interprets their purpose given the total factor context.

Our interpretation was that the role player was probably, in most cases, checking with his colleagues on existing norms (unwritten policies) and regulations. This interpretation seemed consistent with the factor as an entity and suggested that the factor was, indeed, defined by actions in response to existing norms and regulations. However, the second-order correlations (discussed in a later section of the paper) suggest that two quite different types of role players may have scored high on Factor 7: (1) bureaucratic types "going by the book" and (2) change-oriented types "looking the situation over before making a move."

Table 12. AAP Factor 7: Responding to Existing Norms and Regulations.

Variable	Loading
1. Discussed or made arrangements to discuss the matter with another building principal.	.62
2. Asked for or made arrangements to get information from another building principal.	.54
3. Asked for ipinion, advice, or permission from files and/or written policies and regulations.	.44
4. Asked for opinion, advice, or permission from higher authority.	.44
5. Discussed or made arrangements to discuss the matter with a subordinate.	.39

Eight factors loaded on AAP Factor 8 (Table 13). This factor, moderate in strength, seemed to be defined by actions characterized (1) by information seeking and (2) by communicating as a matter of courtesy.

Table 13. AAP Factor 8: Seeking Information and Communicating Decisions Made as a Matter of Courtesy.

Variable	Loading
1. Asked for or made arrangements to get information from files and/or written policies and regulations.	.59
2. Communicated as a matter of courtesy to outsiders.	.59
3. Communicated as a matter of courtesy to a faculty committee.	.57
4. Asked for opinion, advice, or permission from the faculty.	.51
5. Communicated as a matter of courtesy to a student.	.49
6. Communicated as a matter of courtesy to the faculty.	.49
7. Asked for or made arrangements to get information from the faculty.	.43
8. Delegated partial authority in the matter (with guidelines) to higher authority.	-.35

The Value Assumptions Profile (VAP)

Of the 20 variables comprising the VAP, 5 loaded (greater than or equal to .40) on Factor 1 (Table 14).[8] These seem to constitute a set of beliefs

[8]Nineteen of these variables were "working" variables. Variable 20 was a catch-all which provided the respondent an opportunity to state that, "The problem as I saw it was not significantly described by any of the value assumptions listed above." It should be noted here that when the VAP was tested as a pure attitude scale (as opposed to a checklist of value assumptions in actual decision situation), the items, with a single exception (item 2), loaded precisely as predicted on two factors accounting for 30% of the total variance. These factors had been previously designated, after the work of Fred Kerlinger, as "Progressivism" and "Traditionalism." It is interesting that the same items used in the present research produced five factors accounting for 52% of the total variance. The first two of these factors are comprised essentially of the items which define "Progressivism," whereas the remaining three factors are comprised essentially of the items which define "Traditionalism" when the instrument is administered as a Likert scale.

defining experimentalism and student centeredness as more basic values. Examination of the factor correlation matrix suggests that Factor 1 is a strong factor.

Table 14. VAP Factor 1: Experimentalism and Student Centeredness.

Variable	Loading
1. Emotional and social development are as important as criteria of student performance as academic achievement.	.83
2. Learning is experimental and openness to criticism is an essential element in constructive change.	.77
3. Schools need to work with students and community to help correct the injustices of society.	.63
4. Students do not leave their Constitutional rights "at the doorstep of the school."	.59
5. Students have a special perspective on curriculum and other school affairs and their participation in planning and policy-making is essential to improving the school as a social institution.	.54

Six variables loaded on VAP Factor 2 (Table 15). These seem to constitute a set of beliefs defining social reconstructionism as a more basic value. Examination of the factor correlation matrix suggests that Factor 2 is also a strong factor.

Table 15. VAP Factor 2: Social Reconstructionism.

Variable	Loading
1. This is a racist society and schools must change -- quickly and dramatically.	.74
2. It's a different world we live in and schools are just going to have to change.	.71
3. The school's job is to teach children, not to get involved in politics.	.60
4. The school belongs mainly to the community.	.58
5. The traditional moral standards of our culture should not just be accepted but should be examined and tested in solving present problems of students.	.48
6. Students do not leave their Constitutional rights "at the doorstep"of the school.	.42

Three variables loaded on VAP Factor 3 (Table 16). These seem to constitute a set of beliefs defining avoidance of controversy as a more basic value. However, examination of the factor correlation matrix reveals Factor 3 as a weak factor.

Table 16. VAP Factor 3: Avoidance of Controversy.

Variable	Loading
1. The schools are dependent upon the larger community for support and individual teachers and students cannot be permitted to involve it in highly controversial issues.	.69
2. There must be order in the school before anyone can learn.	.53
3. The school's job is to teach children, not to get involved in political issues.	.40

Three variables loaded on VAP Factor 4 (Table 17). These seem to constitute a set of beliefs defining traditionalism as a more basic value. Examination of the factor correlation matrix suggests that Factor 4 is a moderately strong factor.

Table 17. VAP Factor 4: Traditionalism.

Variable	Loading
1. One of the most important functions a school can perform is to teach its students dependence on higher moral values.	.77
2. Children are growing up in the world the way it really is and the best thing they can do for themselves is to do their work and learn what they can in school.	.50
3. Failure is a function of the system, not of the child.	.47
4. It is essential for learning and effective work that teachers outline in detail what is to be done and how to go about it.	.46

Three variables loaded on VAP Factor 5 (Table 18). These seem to constitute a set of beliefs defining authoritarianism as a more basic value. Examination of the factor correlation matrix suggests that Factor 5, too, is only a moderately strong factor.

Table 18. VAP Factor 5: Authoritarianism.

Variable	Loading
1. The authority of the teacher, the administration, and the school must be maintained.	.68
2. The most important commodity the school provides for the student is a storehouse of knowledge.	.67
3. It is essential for learning and effective work that teachers outline in detail what is to be done and how to go about it.	.56

The Means of Communication Profile (MCP)

Of the 7 variables comprising the MCP, 4 loaded on Factor 1 (Table 19). Although only of moderate strength, Factor 1 was the strongest of the three MCP factors. Examination of the factor correlation matrices reveals that, despite some sizeable factor loadings, the last two MCP factors are comparatively weak. Inter-item correlations on these two factors range from .05 to .17.

Factor 1 inter-item correlations range up to .32, with most in the mid-twenties, and the factor seems to pull together a number of variables which seem to define a non-status oriented, interpersonal style of communication.

Table 19: MCP Factor 1: Non-Status Oriented, Interpersonal Communication.

Variable	Loading
1. Face-to-face (in some neutral place)	.77
2. Face-to-face (in his or her office, room, home, etc.)	.63
3. Telephone	.62
4. Face-to-face (in my office)	.45

Two variables load on MCP Factor 2 (Table 20) and define what might be called a public style of communication.

Table 20. MCP Factor 2: Public Communication.

Variable	Loading
1. Mass Media	.86
2. Public Meeting or Assembly	.52

Three variables load on MCP Factor 3 (Table 21) and define what seems to be a bureaucratic style of communication.

Table 21. MCP Factor 3: Bureaucratic Communication.

Variable	Loading
1. Writing	.73
2. Face-to-face (in my office)	.56
3. Public Meeting or Assembly	.46

Personal Characteristics

Personal characteristics on which data were collected included Age, Sex, Length of Administrative Experience in Schools, Highest Level of Administrative Experience in Schools, Regional Affiliation, and Dogmatism. Four of these showed substantial inter-item correlations, ranging from .08 to .71. This factor is shown in Table 22.

Table 22. Personal Characteristics Factor: Age and Experience.

Variable	Loading
1. Administrative Experience in Schools	.82
2. Highest Level of Administrative Experience in Schools	.77
3. Age	.76
4. Northern Regional Affiliation	.37

Second Order Analyses

Second order factor analyses were performed on (1) personal characteristics and all profile factors and (2) all profile factors without personal characteristics. The second seemed more useful than the first and a five factor solution across the 16 profile factors produced 3 interpretable and intuitively appealing second order factors of some strength in terms of inter-factor correlations.[9] These are shown in Tables 23-25 and suggest three different leadership styles.

Table 23. Second-Order Factor 1: Personal-Transactional Leadership.

First-Order Factor	Loading
1. Experimentalism and Student Centeredness (VAP Factor 1)	.73
2. Seeking Information and Communicating Decisions as a Matter of Courtesy (AAP Factor 8)	.71

Table 24. Second-Order Factor 2: Authoritarian Leadership.

First-Order Factor	Loading
1. Authoritarianism (VAP Factor 5)	.78
2. Public Communication (MCP Factor 2)	.75

Table 25. Second-Order Factor 3: Participative Leadership.

First-Order Factor	Loading
1. Non-Status Oriented, Interpersonal Communication (MCP Factor 1)	.89
2. Working Through Groups (AAP Factor 4)	.74

[9]Obviously, correlations between factors in the same profile will always = .00 (except for rounding errors) since a Varimax (orthogonal) rotation was employed in the first order analyses. However, factors across profiles produced bivariate correlations up to .49.

The Personal-Transactional Style of Leadership is characterized by information seeking by the leader, decisionmaking by the leader (based upon information obtained), and subsequent communication to others by the leader of decisions made. The data indicate that communications following the making of decisions are made as a matter of courtesy.

This is clearly not a leadership style which involves others in problem definition and in the consideration of alternatives toward problem solution. It is a leader-centered style, yet it is associated with student-centered and experimental values. It is a leader-centered style, yet it does involve strongly a process of seeking information prior to decison. It seems to place the leader as person at the center of a great many transactions in the decisionmaking process, transactions, however, which are primarily with individuals and groups on his terms rather than with groups and groups of groups in which they are authentic and active participants in a decisionmaking process defined as much by their goals as by the leader's. It is on this basis, then, that we identify this pattern of response as a Personal-Transactional Style of Leadership.

In contrast to Personal-Transactional Leadership is Participative Leadership. This is characterized by a person-oriented, human relations style of communication. It includes much face-to-face and voice-to-voice communication with clear sensitivity to the effects of territoriality upon interpersonal relations. Efforts are made to meet the other person on his ground and/or on neutral ground. Also, in contrast to the Personal-Transactional Style of Leadership is the emphasis in Participative Leadership upon working through groups rather than in a hub and spoke configuration with the leader at the center.

The Authoritarian Style of Leadership is more difficult to distinguish as an active style based upon the data available in this study. It displays itself rather by its values than by its actions, except as it is associated with communication through assemblies, public meetings, and the mass media. It tends to be subject-centered in matters of curriculum and lays emphasis upon the need to maintain authority in the school and the need of students for detailed work instructions. Interestingly, in this study at least, Authoritarian Leadership was also associated ($r=.34$) with initiating structure for change. What kind of change, however, may be the important question and, unfortunately, the data don't speak to that question.

Summary

First-order analyses of the data obtained from 90 workshop participants, each playing the role of the principal of Janus Junior High School, a racially mixed inner city school, have identified 16 factors of actions, values, and means of communication. Second-order analyses have identified three types of administrative style: (1) Personal-Transactional; (2) Authoritarian; and (3) Participative. Further research is planned to test the stability of these findings, hopefully with larger, more representative samples in both simulated and real-world environments.